

Input voltage up to 144 VDC
Single output of 3.3 to 36 VDC
No input-to-output isolation



Features

- RoHS lead solder exemption compliant
- Efficiency up to 97%
- Low input-output differential voltage
- No derating over temperature

Model Selection

Output $V_{o\text{nom}}$ [VDC]	$I_{o\text{nom}}$ [A]	Input voltage V_i [VDC]	Rated power $P_{o\text{tot}}$ [W]	Efficiency η_{typ} [%]	Type	Options
3.3	12	8 - 40	39.6	77	PSC 3E12-2	iR-Package
5.1	10	8 - 80	51	79	PSC 5A10-7iR	-9, L, P, C, D
5.1	11	8 - 40	56.1	79	PSC 5A11-2	iR-Package
5.1	12	7 - 40	61.2	83	PSC 5A12-7iR	-9, L, P, C, D
12	6	18 - 144	72	89	PSC 126-7iR	-9, L, P, C, D
12	8	15 - 80	96	90	PSC 128-7iR	-9, L, P, C, D
12	9	15 - 40	108	90	PSC 129-2	iR-Package
15	6	22 - 144	90	90	PSC 156-7iR	-9, L, P, C, D
15	8	19 - 80	120	91	PSC 158-7iR	-9, L, P, C, D
15	9	19 - 40	135	91	PSC 159-2	iR-Package
24	6	31 - 144	144	94	PSC 246-7iR	-9, L, P, C, D
24	8	29 - 80	192	94	PSC 248-7iR	-9, L, P, C, D
24	9	29 - 60	216	94	PSC 249-2	iR-Package
36	6	44 - 144	216	95	PSC 366-7iR	-9, L, P, C, D
36	8	42 - 80	288	96	PSC 368-7iR	-9, L, P, C, D
48	6	58-144	288	97	PSC 486-7iR	-9, L, P, C, D

Input

Input voltage	refer to selection chart
No load input current	-50 mA

Output

Efficiency	$V_{i\text{nom}}, I_{o\text{nom}}$	up to 96%
Output voltage setting accuracy	$V_{i\text{nom}}, I_{o\text{nom}}$	$\pm 0.6\% V_{o\text{nom}}$
Output voltage switching noise	IEC/EN 61204, total	typ. 0.4%
Line regulation	$V_{i\text{min}} - V_{i\text{max}}, I_{o\text{nom}}$	typ. $\pm 0.3\%$
Load regulation	$V_{i\text{nom}}, 0 - I_{o\text{nom}}$	typ. 0.3%
Minimum load	not required	0 A
Current limitation	rectangular U/I characteristic	typ. 110% $I_{o\text{nom}}$
Operation in parallel	by current limitation	

Protection

Input reverse polarity	with external fuse (built-in fuse with option C installed)	
Input undervoltage lockout		typ. 80% $V_{i\min}$
Input transient protection	suppressor diode	
Output	no-load, overload and short circuit proof	
Output overvoltage	suppressor diode	typ. 150% $V_{o\text{nom}}$

Safety

Approvals	EN 60950, UL 1950, CSA C22.2 No. 950	
Protection degree	IP 20	
Electric strength test voltage	I/case and O/case	500/750/1500 V DC

EMC

Electrostatic discharge	IEC/EN 61000-4-2
Electromagnetic field	IEC/EN 61000-4-3
Electr. fast transients/bursts	IEC/EN 61000-4-4
Surge	IEC/EN 61000-4-5
Conducted disturbances	IEC/EN 61000-4-6
Electromagnetic emissions	CISPR 22/EN 55022

Environmental

Operating ambient temperature	-2, $V_{i\text{nom}}, I_{o\text{nom}}$, convection cooled	-10 to 50°C
Operating case temperature T_C	-2, $V_{i\text{nom}}, I_{o\text{nom}}$	-10 to 80°C
Storage temperature	-2, non operational	-25 to 100°C
Operating ambient temperature	-7, $V_{i\text{nom}}, I_{o\text{nom}}$, convection cooled	-25 to 71°C
Operating case temperature T_C	-7, $V_{i\text{nom}}, I_{o\text{nom}}$	-25 to 95°C
Storage temperature	-7, non operational	-40 to 100°C
Damp heat	IEC/EN 60068-2-3	
Vibration, sinusoidal	IEC/EN 60068-2-6	
Shock	IEC/EN 60068-2-27	
Bump	IEC/EN 60068-2-29	
Random vibration	IEC/EN 60068-2-64	
MTBF	MIL-HDBK-217	

Options

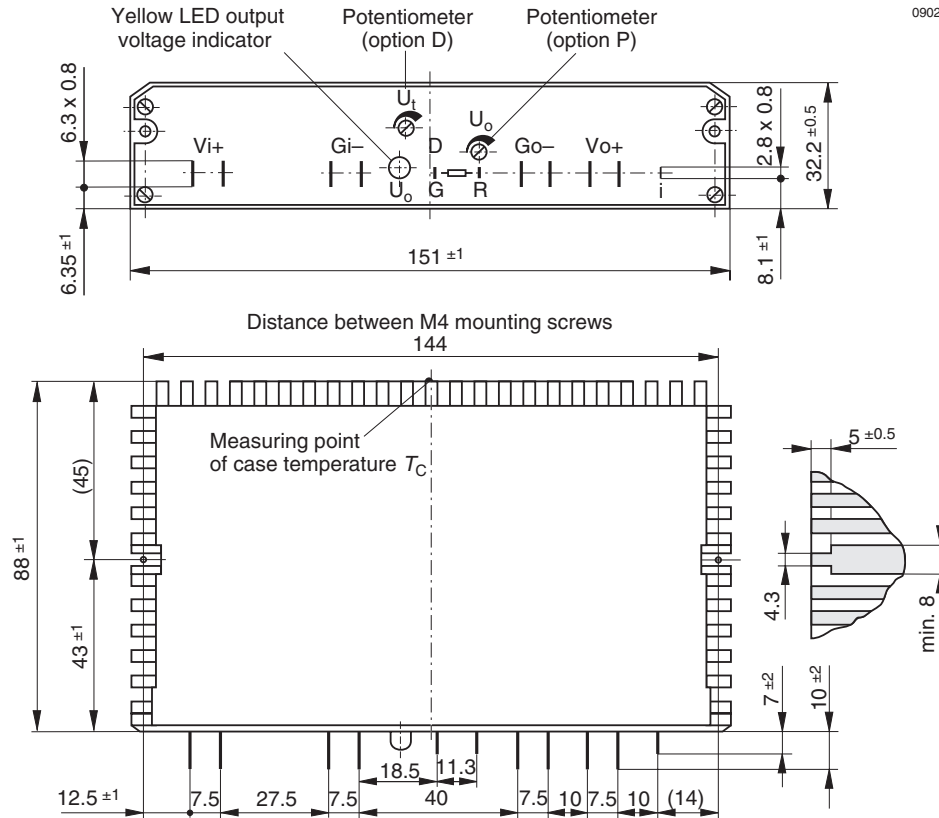
Extended temperature range	-40 to 71°C, (ambient)	-9
Inhibit, TTL input, output(s) enabled if left open		i
Output voltage adjust	0 - 108% $V_{o\text{nom}}$	R
Output voltage adjust potentiometer	$\pm 8\% V_{o\text{nom}}$	P
Additional internal input filter		L
Thyristor crowbar on output		C
Input/output undervoltage monitor		D/D1

Mechanical data

Tolerances ± 0.3 mm (0.012") unless otherwise indicated.



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Accessories

Isolation pads for easy and safe PCB mounting
Ring core chokes for ripple and interference reduction

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